

WHAT IS CLAIMED IS:

1. A USB-based data security device comprising:

a USB mass storage class controller connected to a
USB-interfaced operation system for carrying out USB
protocol commands issued by the operation system; and

a data protection device connecting the USB mass storage class
controller to a data storage device, the data protection
device comprising a write protection unit, an enciphering
unit and a deciphering unit, the write protection unit and the
enciphering unit respectively providing write protection of
the data storage medium and enciphering data when data are
to be written by the operation system into the data storage
medium, the deciphering unit deciphering data from the data
storage medium when the operation system reads the data
from the data storage medium.

2. The USB-based data security device as claimed in Claim 1, wherein
the USB mass storage class controller and the data protection device
are incorporated in a USB-based data accessing device.

3. The USB-based data security device as claimed in Claim 2, wherein
the USB-based data accessing device comprises a USB-based card
reader.

4. The USB-based data security device as claimed in Claim 1, wherein
the data storage medium comprises a compact flash card.

5. The USB-based data security device as claimed in Claim 1, wherein the data storage medium comprises a multi-media card.
6. The USB-based data security device as claimed in Claim 1, wherein the data storage medium comprises a memory stick.
- 5 7. The USB-based data security device as claimed in Claim 1, wherein the data storage medium comprises a smart media card.
8. The USB-based data security device as claimed in Claim 1, wherein the data storage medium comprises a security digital card.